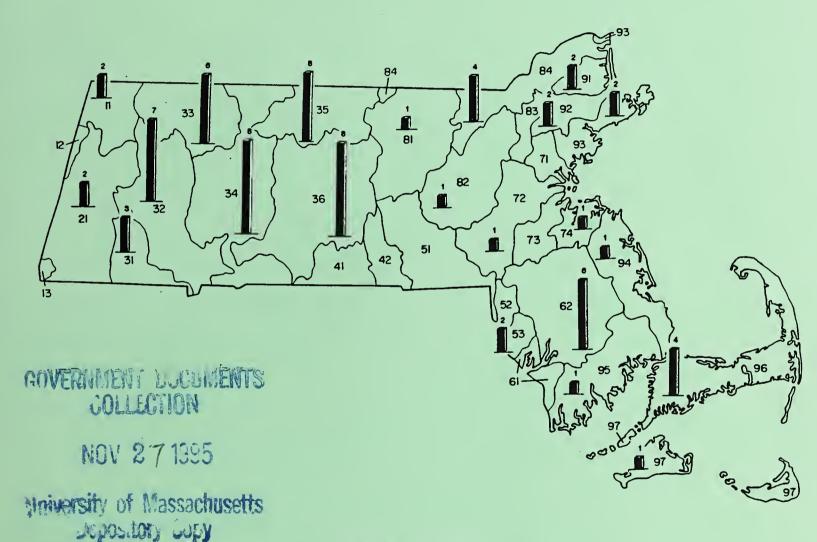
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### INDICATIVE PROJECT SUMMARIES

## SECTION 604b WATER QUALITY MANAGEMENT PLANNING PROGRAM



1991-1995



MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATERSHED MANAGEMENT Andrew Gottlieb, Director

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### SECTION 604b WATER QUALITY MANAGEMENT PLANNING PROGRAM

#### INDICATIVE PROJECT SUMMARIES

1991 - 1995

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> > > **MAY 1995**

TITLE:

Indicative Project Summaries

Section 604b Water Quality Management Planning Program, 1991 - 1995

DATE:

May 26, 1995

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#### **INTRODUCTION**

This report presents indicative summaries of 38 projects partially financed under the 604b Water Quality Management Planning Grants Program during the federal fiscal years of 1991 - 1995.

Section 604b of the Federal Clean Water Act authorizes the awarding of funds through the U.S. Environmental Protection Agency (EPA) to states for water quality assessment and management planning grants. In Massachusetts the 604b program is administered by the Department of Environmental Protection, Office of Watershed Management.

The 604b Grant Program is designed to assist eligible recipients in providing water quality assessment and planning assistance to local communities. Prior to 1995 the 604b Grant Program was administered by the Department's Division of Water Supply. Grants awarded focussed primarily on water supply protection and planning projects. In 1995 the Department directed the focus of the 604b program towards watershed or subwatershed based nonpoint source assessment type projects. Priority is given to projects that provide diagnostic information to support the Department's Office of Watershed Management (OWM) basin-wide water quality management activities. The assessment activities provide information useful in the development of recommendations relative to future nonpoint source pollution best management practice (BMP) implementation projects, the water withdrawal permitting process, drinking water source protection, and/or management strategies for restoration and protection of surface and groundwater resources.

Each year the Department issues a Request for Proposals (RFP) for competitive projects to be funded under the 604(b) program. Eligible respondents include regional planning agencies, councils of governments, conservation districts, counties, cities and towns, and other substate planning agencies and interstate agencies. Priority is given to projects located in one (or more) of the priority watersheds targeted for assessment work as defined by the OWM and involve assessment/planning activities such as: assessment of local water quality protection measures; assessment of land use activities; assessment of local environmental awareness and concerns; water quality assessment; water supply/water quality source protection planning, and water supply development planning. Matching funds are not required under the 604b Grant Program, however proposals are enhanced by offering additional cash or in-kind services as demonstration of local support.

The statewide distribution by basin of the 38 projects is illustrated in Figure 1. The total cost of these projects is \$1,247,889. Of this amount the EPA share is \$1,159,314. Figure 2 compares the number of projects funded each year with total yearly 604(b) funding allocations. The total 604b project costs for each fiscal year is illustrated in Figure 3 along with the total local match contributed for each year. The average 604b project cost ranged from approximately \$28,000 in 1992 to approximately \$48,000 in 1995, with a general increasing trend exhibited in individual project cost over the reporting period of 1991 - 1995.

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#### 96 KILOMETERS MILES SECTION 604b WATER QUALITY MANAGEMENT PLANNING PROGRAM MASSACHUSETTS DEPARIMENT OF ENVIRONMENTAL PROTECTION 62 92 84 Note: Some projects encompass 73 83 72 = Number of Projects more than one basin. 52 **DISTRIBUTION OF 604b PROJECTS BY BASIN** in Basin 85 2 ळ 84 42 WEYMOUTH & WEIR (1991-1995)FIGURE 1 BUZZARDS BAY NORTH SHORE SOUTH SHORE SHAWSHEEN MERRIMACK CAPE COD NEPONSET CONCORD ISLANDS CHARLES TAUNTON PARKER IPSWICH NASHUA 35 MYSTIC 36 96 93 94 95 83 84 73 74 82 8 6 34 NARRAGANSETT BAY (shore) MOUNT HOPE BAY (shore) BASIN IDENTIFICATION 33 CONNECTICUT BLACKSTONE FARMINGTON KINDERHOOK HOUSATONIC TEN MILE WESTFIELD DEERFIELD **QUINE BAUG** CHICOPEE BASHBISH MILLERS FRENCH HOOSIC 3 53 35 36 33 3 2 4 3

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FIGURE 2

COMPARISON OF NUMBER OF 604b PROJECTS

and

TOTAL FEDERAL 604b DOLLARS SPENT (1991-1995)

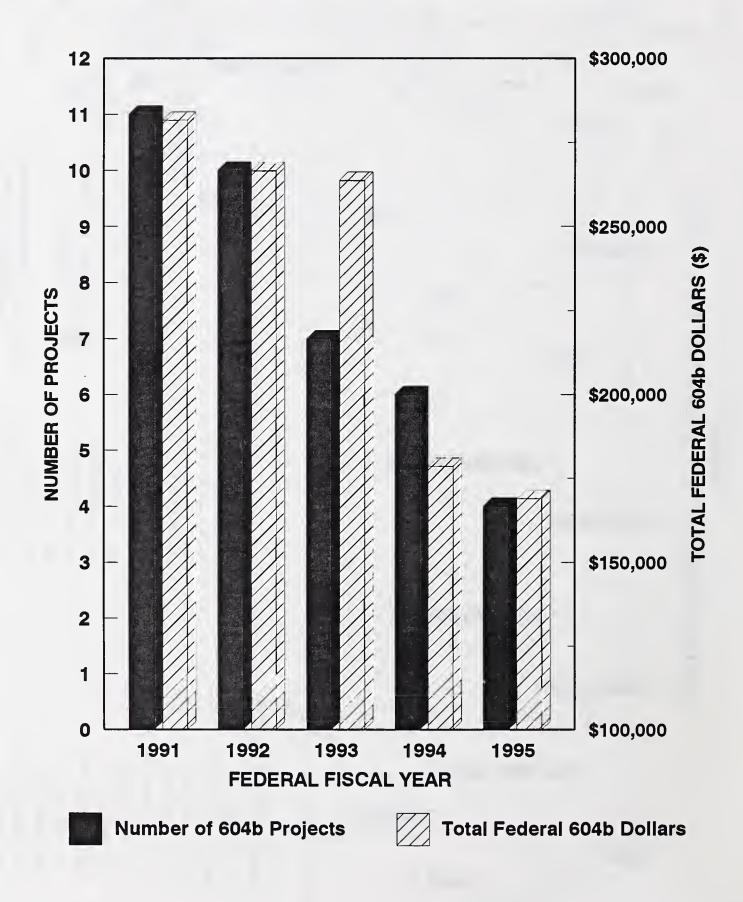
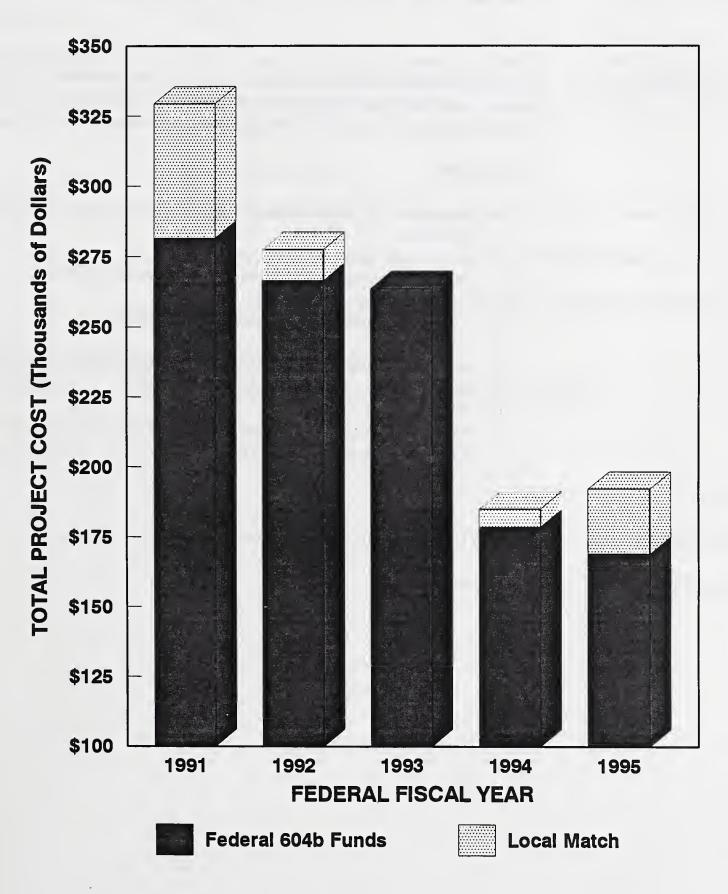


FIGURE 3

COMPARISON OF TOTAL 604b PROJECT COST and

LOCAL MATCH CONTRIBUTIONS (1991-1995)



PROJECT TITLE:

Control of Hazardous Material Users to Protect Groundwater Quality

on Cape Cod

INVESTIGATOR:

Barnstable County Health and Environmental Department

LOCATION:

Cape Cod

DESCRIPTION:

This project will provide technical assistance to the communities of Chatham, Eastham and Orleans for implementation of a local initiative to regulate hazardous material users (HMU's) to prevent groundwater deterioration.

#### Tasks include:

- 1. preparation of draft model regulation to control toxic and hazardous materials;
- 2. conduct inventory, registration and assessment of HMU's;
- 3. train local officials in site inspections of HMU's;
- 4. determine locations of all residential and commercial underground storage tanks located in the study area; and
- 5. reassess potential contamination sources to determine if more comprehensive regulations are necessary.

COST:

\$20,531

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE:

Monomoy Lens Regional Water Protection Project

INVESTIGATOR:

Cape Cod Commission

LOCATION:

Cape Cod

DESCRIPTION:

This project will provide technical assistance to the Monomy Lens Communities of Dennis, Harwich, Brewster, Orleans, Chatham and Yarmouth for the development of a comprehensive regional groundwater protection plan.

The investigator will:

1. develop Monomy Lens Geographic Information System (GIS);

2. prepare Monomy Lens Groundwater Protection Plan; and

3. establish a Monomy Lens Groundwater Protection Committee.

COST:

\$50,825

FUNDING:

\$15,000 by the U.S. Environmental Protection Agency

\$35,825 by the Cape Cod Commission

**DURATION:** 

PROJECT TITLE: Quaboag River Water Supply Protection Project

INVESTIGATOR: Central Massachusetts Regional Planning Commission

LOCATION: Chicopee River Basin

DESCRIPTION: The purpose of this project is to provide technical assistance to the

communities of East Brookfield, Brookfield, West Brookfield and Warren for development of regional water supply protection measures to safeguard their

public supplies.

Specific tasks will include:

1. establishment of regional task force to oversee the planning process;

2. identification of major potential sources of contamination to the

public water supplies;

3. an evaluation and identification of development controls; and

4. development of recommendations for proposed new land use

regulations in each community.

COST: \$25,000

FUNDING: 100% by the U.S. Environmental Protection Agency

DURATION: 1992 - 1993

PROJECT TITLE:

Franklin County Water Resources Protection Planning Project

**INVESTIGATOR:** 

Franklin County Commission

LOCATION:

Deerfield, Millers, Connecticut and Chicopee River Basins

DESCRIPTION:

This project will provide technical assistance and support to selected communities in Franklin County for comprehensive water resource protection planning, to develop contingency plans for public groundwater supplies, develop regional water supply protection measures and develop and implement an education program for the banking and real estate community.

Specifically, the investigator will:

- 1. establish water resource protection committees;
- 2. prepare parcel-level risk assessment mapping for public water supplies in Greenfield, Colrain, Bernardston and Orange, and for private water supplies in Leyden and Colrain;
- 3. develop and implement regulations and bylaws to protect water supplies in the communities of Greenfield, Colrain, Bernardston, Orange, and Leyden;
- 4. provide staffing to the Western Valley Water Supply Committee;
- 5. develop contingency plans for the public water supplies in the communities of Sunderland, South Deerfield, Old Deerfield, Whately, Orange, and Buckland/Shelburne; and
- 6. develop and conduct workshops for banks, realtors, and appraisers.

COST:

\$39,000

FUNDING:

100% by the U.S. Environmental Protection Agency

DURATION:

PROJECT TITLE:

Merrimack River Water Resources Protection Project

**INVESTIGATOR:** 

Merrimack Valley Planning Commission

LOCATION:

Merrimack River Basin

DESCRIPTION:

The purpose of this project is to provide technical assistance to the communities of Merrimac, Newburyport and West Newbury to enhance local water supply protection and management and provide more effective water supply protection at the local and regional levels.

Tasks to be completed include:

1. formation of permanent water resource protection committee;

2. inventory and mapping of water supply resources and potential sources of contamination;

3. assessment of contamination risks;

4. development and implementation of local water supply protection strategies;

5. organization of public education meeting.

COST:

\$24,500

FUNDING:

\$19,500 by the U.S. Environmental Protection Agency \$5,000 by the Merrimack Valley Planning Commission

DURATION:

PROJECT TITLE:

Charles River Southwest Regional Water Supply Protection Planning Project

**INVESTIGATOR:** 

Metropolitan Area Planning Council

LOCATION:

Charles River Basin

DESCRIPTION:

This project will provide technical assistance to the communities of Bellingham, Dover, Franklin, Holliston, Medway, Milford, Millis, Sherborn, and Wrentham in the Charles River Basin to develop and implement local and regional water supply protection measures.

The investigator will:

- 1. establish a Southwest Advisory Water Supply Protection Committee;
- 2. inventory and map available hydrogeologic data for delineation of aquifer boundaries and/or zones of contribution to public supply wells and watersheds of municipal reservoirs;
- 3. inventory and map contamination sources and land use;
- 4. evaluate existing groundwater protection measures;
- 5. recommend groundwater protection measures for local implementation; and
- 6. implement an outreach program.

COST:

\$39,000

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE: Upper Naukeag Lake Watershed Protection Study

INVESTIGATOR: Montachusett Regional Planning Commission

LOCATION: Millers River Basin

DESCRIPTION: The purpose of this project is to provide technical assistance to the communities of Ashburnham and Winchendon in the Upper Naukeag Lake

Watershed to improve the level of protection for the area through the use of conservation restrictions, easements, land acquisition and zoning changes and

to develop best watershed management practices for implementation.

Tasks to be performed include:

1. formation of a task force;

2. identification of major potential groundwater and surface water

contamination sources in the watershed; and

3. evaluation of the adequacy of local water resource protection

regulations and bylaws.

COST: \$12,000

FUNDING: \$10,000 by the U.S. Environmental Protection Agency

\$2,000 by the Montachusett Regional Planning Commission

DURATION: 1992 - 1993

### SECTION 604b WATER QUALITY PLANNING PROJECT 91-08

PROJECT TITLE:

Northern Middlesex County Water Resources Protection Project

INVESTIGATOR:

Northern Middlesex Council of Governments

LOCATION:

Merrimack River Basin

DESCRIPTION:

The purpose of the project is to provide technical assistance to the communities of Chelmsford, Dracut, Tyngsborough, and Westford to establish permanent water resource protection committees and to pilot and support ongoing community-based water resource education, planning, protection and management.

More specifically the investigator will:

- 1. facilitate the establishment of permanent water resource protection committees;
- 2. inventory and map water supply resources and potential sources of contamination;
- 3. assess contamination risks;
- 4. develop and implement local water supply protection strategies; and
- 5. organize and present a public education meeting.

COST:

\$24,500

FUNDING:

\$19,500 by the U.S. Environmental Protection Agency

\$5,000 by the Northern Middlesex Council of Governments.

**DURATION:** 

#### SECTION 604b WATER QUALITY PLANNING PROJECT 91-09

PROJECT TITLE:

Upper Taunton River Basin Water Supply Protection and Development Project

INVESTIGATOR:

Old Colony Planning Council

LOCATION:

Taunton River Basin

DESCRIPTION:

This project will provide assistance to communities affecting Silver Lake and other areas to conduct contingency planning and resolution of short-term to mid-term problems for the Brockton/Whitman Water Supply.

Specific tasks are as follows:

- 1. provide technical assistance to planning boards and other regulatory bodies in Halifax, Plympton, Kingston and Pembroke on adoption of new or strengthened water supply protection regulations;
- 2. prepare information materials on underground storage tanks;
- 3. assist the town of Avon to strengthen existing regulations to meet the requirements for new groundwater sources for regulation of handlers of hazardous materials;
- 4. assist towns of Hanson, East Bridgewater and Halifax in establishing a Drinking Water Protection District;
- 5. conduct contingency planning and resolution of water supply concerns in the Brockton/Whitman Water Supply; and
- 6. conduct public information and awareness activities.

COST:

\$20,000

FUNDING:

100% by the U.S. Environmental Protection Agency

DURATION:

### SECTION 604b WATER QUALITY PLANNING PROJECT 91-10

PROJECT TITLE:

Pioneer Valley Water Resources Protection Project

INVESTIGATOR:

Pioneer Valley Planning Commission

LOCATION:

Westfield River Basin

**DESCRIPTION:** 

The purpose of this project is to provide technical assistance to participating communities (Holyoke and Southampton) for the development of a coordinated approach to inventory and regulate underground storage tanks (USTs) to enhance the Barnes Aquifer protection efforts and to the communities of Blandford, Granville and Russell for development of regional watershed protection mechanisms.

Specifically, the investigator will:

- 1. provide technical assistance to the Barnes Aquifer Protection Advisory Committee (BAPAC) by developing and implementing UST bylaws, and developing UST inventory and database for Geographic Information System;
- 2. provide technical assistance to Blandford, Granville and Russell in developing a regional watershed protection strategy, designing a regional water supply protection strategy, and developing public education material;
- 3. provide technical assistance to the Western Valley Water Protection Committee; and
- 4. provide technical assistance to the Eastern Valley Water Protection Committee.

COST:

\$39,000

FUNDING:

100% by the U.S. Environmental Protection Agency

DURATION:

#### SECTION 604b WATER QUALITY PLANNING PROJECT 91-11

PROJECT TITLE:

Mattapoisett River Water Supply Protection Project

INVESTIGATOR:

Southeastern Regional Planning and Economic Development District

LOCATION:

Taunton River Basin

**DESCRIPTION:** 

The objective of this project is to provide technical assistance to the communities of the Mattapoisett River Water Supply Protection Advisory Committee of Fairhaven, Marion, Mattaposiett, Rochester and Acushnet and to the Lakeville Ponds Protection Committee communities of Taunton, New Bedford, Raynham, Dighton, Berkley, Acushnet, Dartmouth, Fairhaven, Freetown, Lakeville, Middleborough, and Bridgewater for water supply protection.

The investigator will perform the following tasks:

1. organize a subcommittee of the Mattapoisett River Water Supply Protection Advisory Committee, develop materials for formation of water supply protection district and conduct presentations at public meetings; and

2. provide assistance and develop bylaws for the Lakeville Ponds Protection Committee.

COST:

\$35,000

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE:

Cape Cod Small Volume Well Prioritization Project

INVESTIGATOR:

Cape Cod Commission

LOCATION:

Cape Cod

DESCRIPTION:

This project will develop a watershed protection plan for targeted water supply districts and develop an enforcement program for local officials for water resource protection planning.

The investigator will:

- 1. conduct a comprehensive survey locating non-community and non-transient/non-community water supplies;
- 2. evaluate and compare a variety of approaches for delineating the wellhead protection zones of small volume wells;
- 3. assess land use around each well to determine existing vulnerability; and
- 4. develop an education and training program.

COST:

\$19,804

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

#### SECTION 604b WATER QUALITY PLANNING PROJECT 92-02

PROJECT TITLE:

Fitchburg Watershed Planning Project

INVESTIGATOR:

City of Fitchburg

LOCATION:

Nashua River Basin

DESCRIPTION:

This project will provide technical support to local officials in the communities of Fitchburg, Ashby, Hubbardston, Princeton and Westminster to facilitate and streamline enforcement of water supply protection provisions.

Specific tasks will include:

- 1. the establishment of a Water Resource Committee(s) to provide direction and address water protection issues;
- 2. development of intermunicipal agreements regarding notification of sale of watershed land and transfer of purchase rights;
- 3. delineation of watershed boundary information;
- 4. identification of land ownership and parcel boundaries in the watershed;
- 5. identification of potential hazards to water quality; and
- 6. develop critical area acquisition list.

COST:

\$20,000

FUNDING:

100% by the U.S. Environmental Protection Agency

DURATION:

### SECTION 604b WATER QUALITY PLANNING PROJECT 92-03

PROJECT TITLE:

Franklin County Water Resources Protection Planning Project

INVESTIGATOR:

Franklin County Commission

LOCATION:

Deerfield, Millers, Connecticut and Chicopee River Basins

DESCRIPTION:

The purpose of this project is to provide technical assistance and education to communities and small water suppliers in Franklin County.

This following will be conducted:

- 1. the establishment of water resource protection committees with representatives from town boards, water districts and interested citizens in the town of Ashfield and Shelburne;
- 2. a comprehensive education and support program to small water suppliers for compliance with the Safe Drinking Water Act;
- 3. development of a Watershed Resource Protection Plan for the South Deerfield Water Supply District;
- 4. development of strategies for enforcing state and local laws relating to water resource protection; and
- 5. assistance to communities pursuing water resource protection strategies not participating in this project.

COST:

\$45,000

FUNDING:

\$39,000 by the U.S. Environmental Protection Agency

\$5,000 by the Franklin County Commission

\$1,000 by the South Deerfield Water Supply District

**DURATION:** 

#### SECTION 604b WATER QUALITY PLANNING PROJECT 92-04

PROJECT TITLE:

Martha's Vineyard Water Resources Protection Planning Project

INVESTIGATOR:

Martha's Vineyard Commission

LOCATION:

Islands Coastal Drainage Area

DESCRIPTION:

This project will provide technical assistance and education to the communities and small water suppliers of Vineyard Haven, Edgartown, West Tisbury, Tisbury and Oak Bluffs and develop resource protection and land use evaluation plans for regional public water supply resources.

More specifically, the investigator will:

- 1. establish a permanent Water Resource Protection Committee with appointed representation from boards of health, water commission, Martha's Vineyard Water Supply Protection District, Water Superintendents; non-community small water suppliers and the Martha's Vineyard Commission;
- 2. assist Martha's Vineyard communities in coordinating their efforts to protect drinking water sources through land use evaluation by mapping major potential groundwater contamination sources in Wellhead Protection Areas;
- 3. develop a contingency plan for the provision of alternative drinking water supplies for each public water system in the event of contamination or other emergency; and
- 4. coordinate public education efforts by conducting workshops.

COST:

\$25,000

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE:

Merrimack Valley Regional Water Supply Protection Project

INVESTIGATOR:

Merrimack Valley Planning Commission

LOCATION:

Merrimack and Parker River Basins and Coastal Drainage Area

DESCRIPTION:

The objective of this project is to provide technical assistance and support to the communities of Newbury, Rowley and Salisbury and to develop an enforcement program for local officials for comprehensive water resource protection planning.

#### The investigator will:

- 1. establish a permanent water resource protection committee consisting of appointed representation from key local boards and interested citizens from participating communities to promote responsible water resource education, planning, and protection at the local level;
- 2. identify and map key water supply resources and potential sources of contamination;
- 3. assess pollution threats to each water supply;
- 4. develop and implement local water supply protection measures; and
- 5. conduct workshops on water supply protection issues.

COST:

\$24,645

FUNDING:

\$19,645 by the U.S. Environmental Protection Agency \$5,000 by the Merrimack Valley Planning Commission

**DURATION:** 

PROJECT TITLE:

Ipswich and North Coastal River Basins Water Resources Protection

Planning Project

INVESTIGATOR:

Metropolitan Area Planning Council

LOCATION:

Ipswich and North Coastal River Basins

**DESCRIPTION:** 

This project will provide technical assistance and support to the communities of Danvers, Gloucester, Middleton, Peabody, Rockport and Topsfield to develop a regional water supply protection plan for groundwater and surface water sources.

#### Tasks include:

- 1. establishment of permanent Water Resources Protection Committees with appointed representation from town boards, water districts, conservation commissions, and interested citizens from participating communities;
- 2. compilation of all available hydrogeologic data useful for delineation of aquifer boundaries and/or zones of contribution to public supply wells and watersheds of municipal reservoirs;
- 3. an inventory of contamination sources and land use;
- 4. an evaluation of existing local water supply protection measures; and
- 5. recommendations for new or amended water supply protection measures.

COST:

\$35,000

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE: Montachusett Water Resources Protection Planning Project

INVESTIGATOR: Montachusett Regional Planning Commission

LOCATION: Millers River Basin

DESCRIPTION: The purpose of this project is to provide technical assistance and education

to selected communities and water supplies to facilitate and streamline enforcement of water supply protection provisions and develop recommendations for new regulations as necessary and develop a Watershed

Resource Protection Plan for Ashburnham and Winchendon.

More specifically, the investigator will:

1. develop a Watershed Resource Protection Plan for the Ashburnham and Winchendon Joint Water Authority;

2. assess risks and develop best management plans;

3. inventory and map all open space under public control and direct efforts to obtain all agreements with land owners; and

4. conduct education and support program for small water suppliers for compliance with the Safe Drinking Water Act.

COST: \$18,203

FUNDING: 100% by the U.S. Environmental Protection Agency

DURATION: 1993 - 1994

PROJECT TITLE:

Pioneer Valley Water Resources Protection Planning Project

INVESTIGATOR:

Pioneer Valley Planning Commission

LOCATION:

Westfield, Connecticut and Chicopee River Basins

DESCRIPTION:

This project will provide technical assistance and education to communities and small water suppliers in the Pioneer Valley of Massachusetts, develop a Watershed Protection Plan for targeted Water Supply Districts, and develop an enforcement program for local officials for comprehensive water resource protection planning.

Specifically, this will include:

- 1. establishment of an Intermunicipal Watershed Protection Advisory Committee;
- 2. Geographic Information System (GIS) mapping of land use, underground storage tanks and other potential contamination sources in selected communities;
- 3. development of public education materials, such as fact sheets and maps;
- 4. technical support to the Barnes Aquifer Protection Advisory Committee and the Eastern Valley Water Protection Committee;
- 5. development of an education and support program for small water suppliers for compliance with the Safe Drinking Water Act; and
- 6. GIS mapping of small public water supply systems.

COST:

\$39,000

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE:

Small Public Water Supplies Planning and Protection Project

**INVESTIGATOR:** 

Rural Housing Improvements Rural Community Assistance Program

LOCATION:

Hoosic, Housatonic, Deerfield, Westfield, Farmington and Connecticut River

**Basins** 

DESCRIPTION:

This project will provide technical assistance, training, and support to communities in Central and Western Massachusetts, develop a watershed protection plan for targeted Water Supply Districts, and assist local officials in comprehensive water resource protection planning.

The investigator will:

1. deliver a comprehensive education and support program to small water supply systems;

2. coordinate and conduct a workshop for small water suppliers to facilitate compliance with the Safe Drinking Water Act; and

3. organize "teams" and use team approach to deal with water supply problems.

COST:

\$13,888

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE: Taunton River Basin Water Resources Protection Planning Project

INVESTIGATOR: Southeastern Regional Planning and Economic Development District

LOCATION: Taunton River Basin

DESCRIPTION: The objective of this project is to provide technical assistance and education

to communities and water suppliers in the targeted Water Supply Districts, and develop an enforcement program for local officials for comprehensive

Water Resource Protection Planning.

Tasks will include:

1. establishment of a permanent Water Resource Committee to address water resources protection issues in the Palmer River Watershed, Warren Upper Reservoir, and Lower Warren Reservoir areas (in Rehoboth and Swansea, respectively);

2. in conjunction with the Assawompsett Ponds Protection Committee revise existing water resources protection bylaws; and

3. provide administrative support and technical assistance to the Mattapoisett River Valley Water Supply Protection Advisory Committee and propose a model sanitary code.

COST: \$37,000

FUNDING: 100% by the U.S. Environmental Protection Agency

DURATION: 1993 - 1994

PROJECT TITLE: Technical Assistance to Community and Non-Transient Non-Community

(NTNC) Water Suppliers in Preparing Source Protection Plans

INVESTIGATOR: Berkshire County Regional Planning Commission

LOCATION: Hoosic, Housatonic, Deerfield, Westfield and Farmington River Basins

DESCRIPTION: This project will assist NTNC Public Water Suppliers in Berkshire County in

the preparation of Source Protection Plans relative to the SOC/IOC waiver

application.

Tasks will include:

1. compiling a list of all communities and NTNC Community Public Water Suppliers in Berkshire County including relevant information

on each supplier;

2. provide direct technical assistance on the Source Protection Component of the SOC/IOC Waiver applications by conducting workshops, identifying monitoring responsibilities, completing the Wellhead Protection Plan Form, calculating Zone I and IWPA protection areas, aiding in addressing source vulnerability, and

offering best management practices as appropriate;

3. conduct an evaluation of the SOC/IOC Waiver application and produce a supplementary plan to address SOC/IOC issues and make

recommendations; and

4. develop recommendations to targeted communities on the adoption

of Hazardous Materials bylaws.

COST:

\$24,473

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

PROJECT TITLE: Franklin County Water Quality Improvement Program

INVESTIGATOR: Franklin County Commission

LOCATION: Deerfield, Millers, Connecticut and Chicopee River Basins

DESCRIPTION: The objective of this project is to provide technical assistance and education

outreach to communities in Franklin County to improve public and private

water systems and overall groundwater quality.

Specific tasks to be performed by the investigator include:

work with a Water Resource Committee in the Town of Northfield to review current protection measures and identify weaknesses and areas of vulnerability and make recommendations for improved

resource protection;

2. provide direct technical assistance on the Source Protection Component of SOC/IOC Waiver applications for all community and non-transient non-community Public Water Suppliers;

3. conduct a comprehensive water protection workshop;

develop contingency plans for Erving and Greenfield which would provide for management of their water supplies during droughts and

emergencies; and

provide technical assistance to the Western Valley Water Protection

Committee.

COST: \$44,000

FUNDING: 100% by the U.S. Environmental Protection Agency

**DURATION:** 1993 - 1994

### SECTION 604b WATER QUALITY PLANNING PROJECT 93-03

PROJECT TITLE: Development and Implementation of Local Floor Drain Regulations in the

Merrimack and Parker River Basins

INVESTIGATOR: Merrimack Valley Planning Commission

LOCATION: Merrimack and Parker River Basins

DESCRIPTION: The purpose of this project is to enhance the capability of local governments

to prevent or minimize groundwater contamination from commercial and

industrial floor drains.

The principal investigator will:

1. organize and conduct introductory informational meetings in the communities of Georgetown, Groveland, Merrimac, Newbury, Rowley, Salisbury and West Newbury to solicit local input on the project;

2. inventory all commercial and industrial facilities which have the potential to house unauthorized floor drains discharging to the ground, a leaching structure, or a septic system;

3. map the locations of all known and potential facility floor drains identified:

4. present findings and introduce the Department of Environmental Protection's Model Floor Drain Regulation to local officials; and

5. design and conduct a regional training seminar on commercial and industrial floor drains.

COST: \$33,600

FUNDING: 100% by the U.S. Environmental Protection Agency

DURATION: 1993 - 1994

#### SECTION 604b WATER QUALITY PLANNING PROJECT 93-04

PROJECT TITLE:

Sudbury-Assabet-Concord (SuAsCo) River Basin Water Supply Protection

Project

INVESTIGATOR:

Metropolitan Area Planning Council

LOCATION:

Sudbury-Assabet-Concord River Basin

DESCRIPTION:

The purpose of this project is to develop a regional water supply protection plan for the communities of Acton, Boxborough, Carlisle, Concord, Hudson, Littleton, Maynard and Stow.

Specific tasks will be to:

- 1. establish a SuAsCo Basin Water Supply Protection Committee in the eight study towns to assist in locating relevant data, reviewing draft maps and reports, and take a leading role in implementing the plan's actions;
- inventory and map hydrogeologic data useful for delineation of aquifer boundaries and/or zones of contribution to public supply wells and watersheds of municipal reservoirs;
- 3. inventory and map contamination sources (such as underground storage tanks) and land use;
- 4. evaluate existing water supply protection measures including zoning bylaws, general bylaws, and board of health regulations;
- 5. develop draft recommendations for new or amended water supply protection measures for each community; and
- 6. provide assistance to communities for the implementation and enforcement of the recommended protection measures.

COST:

\$43,500

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

## MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION SECTION 604b WATER QUALITY PLANNING PROJECT 93-05

PROJECT TITLE:

Upper Taunton River Basin Water Supply Protection/Contingency Planning

Program

**INVESTIGATOR:** 

Old Colony Planning Council

LOCATION:

Taunton River Basin

DESCRIPTION:

This project will strengthen zoning and non-zoning water supply protection measures, improve contingency supply planning efforts and present a regional forum on supply protection progress and needs in the communities of Avon, Brockton, East Bridgewater, Easton, Halifax, Hanson, Kingston, and West Bridgewater.

The investigator will perform the following tasks:

- 1. establish a Water Supply Protection Advisory Committee to encourage cooperative water supply protection in areas with shared resources or with potential impacts on each others resources;
- 2. expand protection of local and regional ground and surface water supplies in target areas;
- 3. prepare a comprehensive water supply protection plan for the town of Halifax;
- 4. review and synthesize water supply issues, assumptions and recommendations from past efforts performed in the Taunton River Basin;
- 5. conduct contingency planning for Brockton's short to mid-term water supply needs; and
- 6. coordinate and conduct a public forum on water supply issues in the Taunton River Basin.

COST:

\$35,000

FUNDING:

100% of the U.S. Environmental Protection Agency

**DURATION:** 

### SECTION 604b WATER QUALITY PLANNING PROJECT 93-06

PROJECT TITLE:

Pioneer Valley Regional Water Supply Protection Project

INVESTIGATOR:

Pioneer Valley Planning Commission

LOCATION:

Westfield, Connecticut and Chicopee River Basins

DESCRIPTION:

The objective of this project is to provide technical assistance to communities

in the Pioneer Valley on water supply protection.

More specifically the investigator will conduct the following tasks:

- 1. provide technical assistance to the Barnes Aquifer Protection Advisory Committee (BAPAC) by coordinating meetings, developing a proposal for a permanent BAPAC funding mechanism, and revising zoning bylaws for expanded protection areas;
- 2. provide technical assistance to the Eastern Valley Water Protection Committee (EVWPC) by coordinating meetings and developing and implementing applicable components of the EVWPC's comprehensive water protection strategy;
- 3. provide technical assistance to the Western Valley Water Protection Committee (WVWPC) by coordinating meetings, developing and implementing applicable components of WVWPC's Comprehensive Water Protection Strategy, preparing a strategy to protect the confining clay layer over the Mill River Aquifer, and inventorying property owners of all agricultural parcels in Zone II's of wells located in the WVWPC;
- 4. conduct regional watershed management; and
- 5. develop a comprehensive water supply strategy for the Town of Granby.

COST:

\$44,000

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

### SECTION 604b WATER QUALITY PLANNING PROJECT 93-07

PROJECT TITLE:

Technical Assistance to the Palmer River Watershed, Mattapoisett River

Valley Water Supply Protection Advisory Committee and the Taunton River

Basin Needs Study

INVESTIGATOR:

Southeastern Regional Planning and Economic Development District

LOCATION:

Taunton River Basin, Buzzards Bay, and Narragansett Bay

**DESCRIPTION:** 

This project will protect the water resources in the communities of Rehoboth, Swansea, Marion, Mattapoisett, Rochester, Fairhaven, Acushnet and those within the Taunton River Basin through improved regional watershed management planning and regionally-consistent regulations.

Specific tasks will be to:

- 1. address water resources protection and watershed management planning issues in the Palmer River Watershed, Upper Warren Reservoir and Lower Warren Reservoir by amending existing/or establishing new regulations relative to floor drain and septage tracking and management, and organizing and conducting regional health, planning and technology-based workshops;
- 2. provide technical assistance to the Mattapoisett River Valley Water Supply Protection Advisory Committee to establish uniform health regulations to help alleviate potential drinking water contamination; and
- 3. perform a multi-community water supply needs survey in the Taunton River Basin.

COST:

\$39,094

FUNDING:

100% by the U.S. Environmental Protection Agency

DURATION:

### SECTION 604b WATER QUALITY PLANNING PROJECT 94-01

PROJECT TITLE:

Sagamore Lens Groundwater Protection Project

**INVESTIGATOR:** 

Barnstable County/Cape Cod Commission

LOCATION:

Cape Cod

DESCRIPTION:

The purpose of this project is to develop consistent water resource planning strategies for the six-town area that make up the Sagamore Lens including the towns of Bourne, Falmouth, Mashpee, Sandwich, Barnstable and Yarmouth. Technical assistance will be provided through the development of a groundwater protection matrix and land use analysis within water resource recharge areas.

The principal investigator will preform the following tasks relative to this project:

- 1. evaluate the existing groundwater protection regulations in the six towns that comprise the Sagamore Lens as well as the Massachusetts Military Reservation which overlays the crown of the lens and present this information to the local planning committees for implementation;
- 2. prepare and present the Sagamore Lens findings and develop an educational poster for distribution to schools, towns, and public interest groups; and
- 3. select a limited number of zones of contribution crossing town boundaries for land use assessments.

COST:

\$30,000

FUNDING:

\$18,000 by the U.S. Environmental Protection Agency \$12,000 by Barnstable County /Cape Cod Commission

DURATION:

## MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION SECTION 604b WATER QUALITY PLANNING PROJECT 94-02

PROJECT TITLE:

Small Public Water System Collaborative Project

**INVESTIGATOR:** 

Franklin County Commission

LOCATION:

Deerfield, Millers, Connecticut and Chicopee River Basins

DESCRIPTION:

The objective of this project is to safeguard the public health by maintaining and promoting the viability of small public water suppliers in Franklin County through the formation and support of a permanent, mutually-supportive collaborative of small public water suppliers who will act cooperatively to reduce costs and improve efficiency.

The principal investigator will:

- 1. form a Steering Committee to set priorities and objectives, establish guidelines, and provide overall guidance and supervision of the project;
- 2. conduct a comprehensive evaluation of system participant needs;
- 3. form and operate a purchasing and testing collaborative for laboratory testing services and bulk purchase of supplies;
- 4. develop a model purchasing and testing collaborative; and
- 5. provide technical assistance to meet requirements of the Lead and Copper Rule.

COST:

\$39,000

**FUNDING**:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

### SECTION 604b WATER QUALITY PLANNING PROJECT 94-03

PROJECT TITLE: Cape Ann Emergency Water Supply Plan

INVESTIGATOR: Metropolitan Area Planning Council

LOCATION: North Coastal Drainage Area

DESCRIPTION: The intent of this project is to develop an emergency water supply plan for

the City of Gloucester and the Town of Rockport to ensure reliable public water supply service during an emergency due to loss of supplies or water

distribution facilities.

The following will be conducted:

1. the establishment of a Cape Ann Water Supply Coordinating Committee;

2. an inventory and mapping of the components of the Water Supply Systems of Gloucester and Rockport relevant to establishing the capability for emergency transfers of water between the communities;

- 3. a review and evaluation of past planning or engineering studies relevant to system interconnections or emergency water supply provisions;
- 4. a review and evaluation of issues relating to the cost of providing emergency water supplies between the two communities and alternative methods of allocating costs and providing financial compensation to the donor community in the event of an emergency transfer of water; and
- 5. a presentation of recommendations for providing emergency supply capabilities for Gloucester and Rockport, including recommendations for further technical or engineering studies, operation policies and appropriate regulatory measures.

COST: \$20,000

FUNDING: 100% by the U.S. Environmental Protection Agency

DURATION: 1994 - 1995

### SECTION 604b WATER QUALITY PLANNING PROJECT 94-04

PROJECT TITLE:

Public Water Supply Technical Assistance/Watershed Inspection

Implementation and ISTEA Planning Project

**INVESTIGATOR:** 

Pioneer Valley Planning Commission

LOCATION:

Westfield, Connecticut and Chicopee River Basins

DESCRIPTION:

The objective of this project is to provide technical assistance to Pioneer Valley communities on water supply protection. This includes protection of regional aquifer recharge areas through development of a "Green Business" Program to implement best management practices (BMPs), protection of surface water supplies by control of highway runoff and protection of small water supplies through comprehensive municipal strategies to protect small public water systems.

The principal investigator will perform the following:

- 1. provide technical assistance to landowners and municipal officials in the communities of Westfield and Easthampton to implement BMPs for existing land uses to mitigate potential threats to water supplies from those uses;
- 2. assess and evaluate potential contamination threats from existing land uses in the area of the Barnes Aquifer and work with cooperative landowners/business to identify and implement BMPs;
- 3. develop and publicize a program to recognize cooperative businesses through a "Green Business" award program;
- 4. develop and conduct a pilot-planning project to secure ISTEA enhancement funded projects for mitigation of highway runoff which threatens public drinking water supplies;
- 5. improve watershed inspection programs by assessing existing watershed inspection programs and developing and evaluating a proposed "model" inspection program; and
- 6. develop a comprehensive water supply protection program for Brimfield and Goshen, two communities with a large number of small water supplies.

COST:

\$34,112

FUNDING:

\$32,612 by the U.S. Environmental Protection Agency

\$1,500 by the Pioneer Valley Planning Commission

DURATION:

SECTION 604b WATER QUALITY PLANNING PROJECT 94-05

PROJECT TITLE:

A Regional Approach to Water Resources Protection and Protecting a Future

Potential Water Supply

INVESTIGATOR:

Southeastern Regional Planning and Economic Development District

LOCATION:

Narragansett Bay and Taunton River Basin

DESCRIPTION:

The objective of this project is to protect the water resources in the communities of Somerset, Dighton, and Rehoboth through improved local and regional wellhead and watershed management planning and regionally-consistent regulations.

More specifically, this project will:

- 1. develop and implement a regional water resource protection initiative to serve the water supply protection needs of the Dighton and Somerset wellfields, help to protect a shared regional resource, and upgrade local water resource protection-related regulations in both communities; and
- 2. develop and implement water resource protection bylaw provisions focussing on the protection of areas of future potential water supply in the town of Rehoboth.

COST:

\$25,000

**FUNDING:** 

\$20,000 by the U.S. Environmental Protection Agency

\$5,000 by the Southeastern Regional Planning and Economic Development

District

**DURATION:** 

### SECTION 604b WATER QUALITY PLANNING PROJECT 94-06

PROJECT TITLE:

Tri-Town Watershed Protection Implementation Project

INVESTIGATOR:

Tri-Town Board of Water Commissioners

LOCATION:

Weymouth and Weir River Basins

DESCRIPTION:

The purpose of this project is to implement key elements of the Tri-Town Board of Water Commissioners' "Watershed Protection Program" in order to protect existing and potential sources of water supplies.

#### Tasks include:

- 1. establish a regional watershed protection committee and conduct meetings to inform neighboring communities about the critical need for watershed protection;
- 2. develop an emergency response plan to provide effective regionallycoordinated response capabilities to ensure water supply and public safety are protected from accidents;
- 3. develop a recommended standard policy for road salt storage and use;
- 4. review existing zoning protection and develop recommendations for a unified Tri-Town Watershed Protection Bylaw;
- 5. develop a recommended Model Hazardous Materials Bylaw; and
- 6. implement a Public Information Program.

COST:

\$37,000

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

# MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION SECTION 604b WATER QUALITY PLANNING PROJECT 95-01

PROJECT TITLE:

Nonpoint Source Assessment in the Westfield River Watershed

INVESTIGATOR:

Pioneer Valley Planning Commission

LOCATION:

Westfield River Basin

DESCRIPTION:

This project will assess nonpoint sources of pollution in the Westfield River Watershed and assess local water resource protection control measures.

The investigator will:

1. assess and map current land use activities within the Westfield River Watershed;

2. assess the level of existing local water resource protection control in communities in the Westfield River Watershed;

3. estimate nonpoint source pollutant loadings; and

4. conduct water quality sampling in four targeted sub-basins of the Westfield River.

COST:

\$56,927

FUNDING:

\$44,927 by the U.S. Environmental Protection Agency \$12,000 by the Pioneer Valley Planning Commission

**DURATION:** 

### SECTION 604b WATER QUALITY PLANNING PROJECT 95-02

PROJECT TITLE:

Farmington River Watershed Nonpoint Source Assessment Project

INVESTIGATOR:

Berkshire Regional Planning Commission

LOCATION:

Farmington River Basin

**DESCRIPTION:** 

The purpose of this project is to assess the existing and potential water quality problems within the Farmington River Basin to establish an information base that can serve federal, state, regional and local officials.

The Scope of Services include the following tasks:

- 1. develop a Geographic Information System (GIS) Database for the Farmington River Watershed;
- 2. conduct a comprehensive assessment of land use and land use activities, including an identification of potential pollution sources and an evaluation of pollutant loadings;
- 3. assess local water quality protection measures;
- 4. assess local and regional needs for public awareness, environmental education, technical assistance, and interagency/community coordination; and
- 5. develop a watershed Action Plan presenting a management strategy plan to address remediation of existing nonpoint source pollution (NPS) and prevention of potential future NPS pollution.

COST:

\$51,508

FUNDING:

\$44,008 by the U.S. Environmental Protection Agency \$7,500 by the Berkshire Regional Planning Commission

DURATION:

### SECTION 604b WATER QUALITY PLANNING PROJECT 95-03

PROJECT TITLE:

South Shore Nonpoint Source Management Plan

INVESTIGATOR:

Metropolitan Area Planning Council

LOCATION:

South Coastal Drainage Area

DESCRIPTION:

This project will provide the Department and local officials data to characterize the problems of nonpoint source pollution in the South Coastal Drainage Area and provide management tools which can be implemented by communities under their home rule authority.

The following tasks will be conducted:

- 1. the establishment of a South Shore Water Quality Task Force to assist in locating relevant local data, review draft maps and reports, and take a leading role in implementing the South Shore Nonpoint Source (NPS) Management Plan's recommendations;
- 2. an inventory and mapping of land use and potential NPS pollution throughout the targeted nine-town study area;
- 3. a more detailed assessment and modeling of NPS pollution in three sub-basins; and
- 4. an assessment of local water quality protection measures.

COST:

\$43,553

FUNDING:

100% by the U.S. Environmental Protection Agency

**DURATION:** 

### SECTION 604b WATER QUALITY PLANNING PROJECT 95-04

PROJECT TITLE:

Nonpoint Source Assessment in the Ipswich River Watershed

**INVESTIGATOR:** 

Merrimack Valley Planning Commission

LOCATION:

Ipswich River Basin and Coastal Drainage Area

**DESCRIPTION:** 

The purpose of this project is to assess the nonpoint pollution sources in the non-sewered areas of the Ipswich River Watershed from the confluence of the Miles River to the coast.

More specifically, the investigation will:

- 1. inventory town records and maps and build computer databases of all storm drains and subsurface sewage disposal systems in the study area;
- 2. conduct a field survey of subsurface sewage disposal systems;
- 3. collect and analyze water samples from storm drains to identify areas of failing subsurface sewage disposal systems and polluted storm water sources;
- 4. conduct a dye testing program of selected homes/businesses to confirm or reject suspected pollution sources; and
- 5. begin the development of an on-site sewage disposal system management plan for the study area.

COST:

\$40,226

**FUNDING**:

\$36,476 by the U.S. Environmental Protection Agency

\$3,750 by the Merrimack Valley Planning Commission and Others

**DURATION:** 





